multiFlon®

FluorTex®
Polymer Technology

Gasket Sheet ECO
Multidirectionally expanded PTFE

Multidirectional ePTFE Sheet Gasketing



multiFlon® ECO - Gasket Sheets are made from 100% pure multidirectionally expanded PTFE.

The high-quality PTFE resins, the gasket sheets consist of, provide an almost unlimited chemical resistance.

Typical for gaskets made from **multiFlon® ECO** sheets is the high level of compensating capability in terms of micro- and especially macro-unevenness of the sealing surface. Leakage channels that may occur because of flange roughness or irregularities of used flanges can be sealed perfectly due to the high compressibility and adaptability of the gasket.

With **multiFlon® ECO** sheet gasketing you can cover a wide range of flange shapes and process equipment in demanding aggressive environments.

Typical Applications

Components
large-diameter standard flanges, piping systems, apparatus flanges, complex geometries

Flange Types
Steel flanges and high-grade FRP components

Media
Highly aggressive chemicals, all media in food and pharma applications

Key Features

- easy to fabricate into all gasket shapes
- chemically inert (except for molten or dissolved alkali metals and elemental fluorine gas - please contact our technical service for questions)
- suitable for high temperatures
- highly compressible
- highly conformable to the sealing surface
- reliably tight and blow-out safe
- resistant to ageing
- reduces service and operating costs

Approvals and Certificates

- FDA 21 CFR 177.1550 (PTFE)
- EC 1935/2004 and related regulations for extraction limits and GMP
- BAM for liquid and gaseous oxygen
- EU 1907/2006 (REACH) with Annex XVII and its amendments

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multiFlon® Gasket Sheet ECO

Multidirectionally expanded PTFE

Technical Data

Material	100 % pure, multidirectionally expanded PTFE (ePTFE)
Temperature Resistance of the Sealing Material	-240°C to +270°C, intermittent to +315°C
Chemical Resistance	Chemical resistance to all media pH 0 to 14, except molten alkali metals and elemental fluorine
Recommended Application Range	Vacuum up to 68 bar (1000 psig) depending on the installation parameters

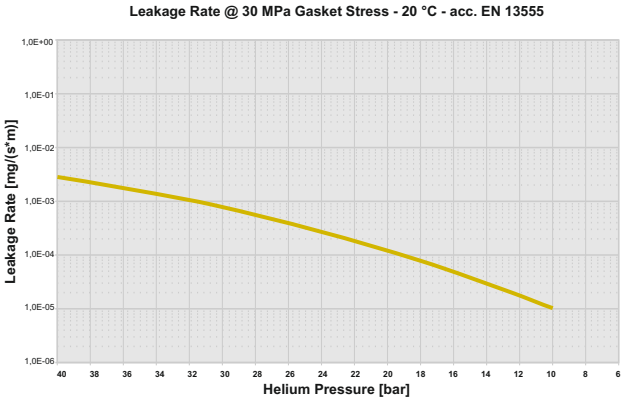
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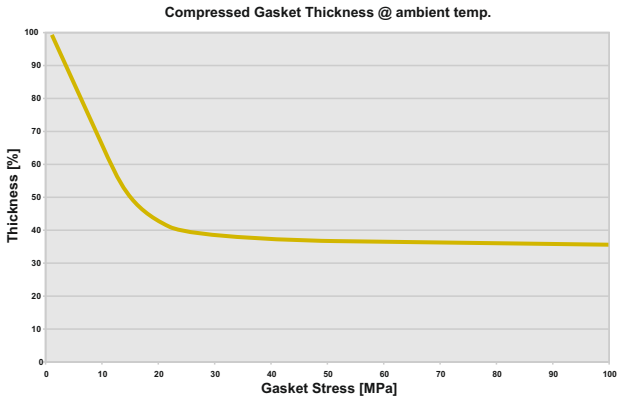
EN 13555 (2 mm Thickness)	
Q_{min} (40 bar He; 0,01 mg/(s*m))	27 MPa
*Q_{smin} (Q_A=30 MPa; 46 bar He; L=0,01)	< 10 MPa
Q_{smax} (23°C)	160 MPa
Leakage Rate (Q_A=40 MPa; 40 bar He)	< 10^{-4} mg/(s*m)
P_{QR} @ 23 °C (Q_A=30 MPa)	0,94

*Due to a series of practical tests it appeared that the minimum required gasket stress during operation is generally lower than the minimal specified gasket stress according to EN 13555.
Therefore in practice we calculate with Q_{Smin} = 5 MPa at controlled assembly.

ASTM F36	
Compressibility	50 - 55 %
Compressed thickness	0,90 mm
Recovery	13 %
Recovered thickness	1,04 mm

Gasket Characteristics





Available Standard Sizes

Type	Size [mm]	Thickness [mm]
multiFlon® ECO	1500 x 1500	0,5
multiFlon® ECO	1500 x 1500	1
multiFlon® ECO	1500 x 1500	1,5
multiFlon® ECO	1500 x 1500	2
multiFlon® ECO	1500 x 1500	3
multiFlon® ECO	1500 x 1500	6

Special sizes upon request

Choice Recommendation

1,5 mm thickness in new piping systems up to DN 300 / 12”

2 mm thickness in standard flanges with good sealing surface

3 mm thickness in flanges and flange-like joints with tolerable unevenness and roughness

All technical information and advice are based on our experience and are to the best of our knowledge, but do not state any liability by our company. Specifications and values must always be checked by the customers, for they are the only ones that can judge the efficiency of a product taking into account all of the on-site operating conditions. For detailed selection criteria, technical assistance and installation guidelines contact our technical service.

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multiFlon sheet ECO 260907 en

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FluorTex GmbH - Polymer Technology
Wasserburger Str. 2 - 83543 Rott am Inn - Germany
Tel.: +49-8039-909649-0 - Fax: +49-8039-909649-99
email: info@fluortex.eu - www.fluortex.eu

Assembly

Clean sealing surface completely. Remove any dirt, corrosion, grease or residue from old sealing materials.

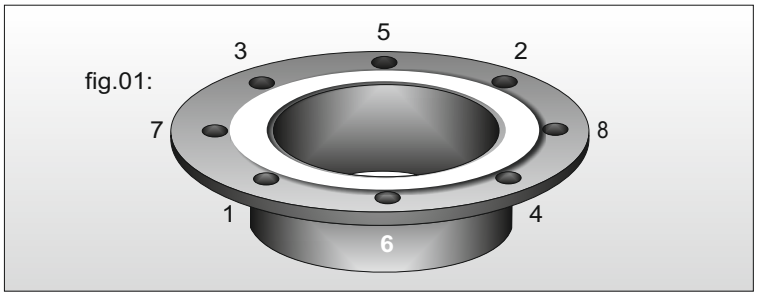
Position gasket to the middle of the sealing surface and torque bolts hand-tight. At least 4 progressive torque sequences with a torque wrench should follow, until you reach the recommended gasket stress (follow sequence as shown in fig. 01).

Perform a circular torque check before start-up of the equipment.

Always follow the state-of-the-art guidelines for gasket assembly as well as the recommended torque for your sealing system.

If you need individual calculations for special equipment or non-standard gasket sizes, contact our technical support.

fig.01:



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